

Product datasheet for **RN205527**

Magoh (NM_001100536) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Magoh (NM_001100536) Rat Untagged Clone
Tag: Tag Free
Symbol: Magoh
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN205527 representing NM_001100536
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGTGACTTTTACCTACGTTACTACGTGGGTCACAAGGCAAGTTGGTCATGAGTTCCTGGAGT
TTGAATCCGACCTGACGGTAAATTGCGATATGCCAACACAGCAATTACAAAAATGATGTCATGATCAG
GAAAGAGGCTTATGTACATAAGAGTGTGATGGAAGAATTAAGAGGATTATTGACGACAGTGAGATCACC
AAAGAAGATGACGCTCTGTGGCCCCCTCCTGATCGAGTGGCCGGCAGGAACCGAAATTGTCATTGGAG
ATGAGCACATTTCTTTTACAACATCAAAAATTGGTCCCTTATTGATGTCAACCAGTCCAAGGATCCAGA
AGGCTTGCAGTGTTTTATTATCTTGTCCAGGACCTGAAGTGTTAGTCTTCAGCCTTATTGGATTACAC
TTCAAGATCAAGCCAAT**C**AG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_001100536
Insert Size: 441 bp
OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



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Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001100536.1](#), [NP_001094006.1](#)

RefSeq Size: 669 bp

RefSeq ORF: 441 bp

Locus ID: 298385

UniProt ID: [Q27W02](#)

Cytogenetics: 5q34

Gene Summary: Required for pre-mRNA splicing as component of the spliceosome. Plays a redundant role with MAGOHB as core component of the exon junction complex (EJC) and in the nonsense-mediated decay (NMD) pathway. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). The MAGOH-RBM8A heterodimer inhibits the ATPase activity of EIF4A3, thereby trapping the ATP-bound EJC core onto spliced mRNA in a stable conformation. The MAGOH-RBM8A heterodimer interacts with the EJC key regulator PYM1 leading to EJC disassembly in the cytoplasm and translation enhancement of EJC-bearing spliced mRNAs by recruiting them to the ribosomal 48S preinitiation complex. Involved in the splicing modulation of BCL2L1/Bcl-X (and probably other apoptotic genes); specifically inhibits formation of proapoptotic isoforms; the function is different from the established EJC assembly.[UniProtKB/Swiss-Prot Function]